

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

Power Integrations, Inc.,

NO. C 09-05235 JW

Plaintiff,

**THIRD CLAIM CONSTRUCTION ORDER**

v.

Fairchild Semiconductor Int'l, Inc., et al.,

Defendants.

**A. Background**

On July 13, 2011, the Court issued its First Claim Construction Order for U.S. Patent Nos. 6,212,079 (the “‘079 Patent”) and 6,538,908 (the “‘908 Patent”).<sup>1</sup> On August 30, 2011, the Court issued its Second Claim Construction Order for U.S. Patent No. 5,747,977 (the “‘977 Patent”).<sup>2</sup> Subsequently, in a Joint Case Management Statement, Defendants requested the construction of two additional terms. (Docket Item No. 133.) On October 6, 2011, the Court ordered the parties to submit supplemental claim construction briefing for the terms “to switch the power switch” and “current limit.”<sup>3</sup> The Court proceeds to construe the additional disputed phrases.

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<sup>1</sup> (First Claim Construction Order, hereafter, “July 13 Order,” Docket Item No. 128.)

<sup>2</sup> (Docket Item No. 132.)

<sup>3</sup> (Order Setting Briefing on Additional Claim Construction, Docket Item No. 138.)

**B. The '079 Patent**

The '079 Patent was the subject of *ex parte* reexamination proceedings before the PTO. The PTO issued an *Ex Parte* Reexamination Certificate determining that certain claims were patentable as amended and adding new patentable claims.<sup>4</sup>

Claim 1 of the '079 Patent, as it appears in the reexamination certificate,<sup>5</sup> provides:<sup>6</sup>

A switching regulator, comprising:

a power switch coupled between first and second terminals, the first terminal to be coupled to an energy transfer element of a power supply and the second terminal to be coupled to a supply rail of the power supply;

a control circuit coupled to a third terminal and the power switch, the third terminal to be coupled to an output of the power supply, the control circuit coupled to generate a feedback signal responsive to the output of the power supply, the control circuit coupled **to switch the power switch in response to the feedback signal**; and

an oscillator circuit included in the control circuit for controlling both a switching frequency and a maximum duty cycle of the power switch,

wherein the control circuit is coupled to switch the power switch at a fixed switching frequency for a first range of feedback signal values when the output of the power supply is in regulation, and wherein the control circuit is coupled to vary a switching frequency of the power switch without skipping cycles in response to the feedback signal for a second range of feedback signal values when the output of the power supply is in regulation.

('079 Patent Reexam, Col. 1:27-50.)

The parties dispute the meaning of the term “to switch the power switch in response to the feedback signal.”

In the First Claim Construction, the Court construed the phrase “to vary a switching frequency of the power switch without skipping cycles in response to the feedback signal” to mean:

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<sup>4</sup> (See Complaint for Patent Infringement, Ex. F, '079 Patent, Ex Parte Reexamination Certificate, hereafter, “'079 Patent Reexam,” Docket Item No. 1-7.)

<sup>5</sup> Claim 1 was determined to be patentable as amended in the reexamination proceedings. (See '079 Patent Reexam.)

<sup>6</sup> Unless otherwise indicated, all bold typeface is added by the Court for emphasis.

1 “changing the number of switching cycles per second of the power switch in response to the  
2 feedback signal while continuing to turn the switch on in each cycle.” (July 13 Order at 12.) The  
3 Court found that it was possible to construe this phrase without specifically addressing the phrases  
4 “in response to the feedback signal” or “power switch.” Thus, implicit in the Court’s prior  
5 construction of the ‘079 Patent is the Court’s conclusion that these phrases are not in need of  
6 clarification. Accordingly, the Court finds that the only phrase that requires additional clarification  
7 is the verb “to switch.”

8 The specification does not expressly define the verb “to switch.”<sup>7</sup> However, the  
9 specification does use the verb “to switch” when describing the invention, stating “[a] gate of power  
10 switch 247 is coupled to be **switched** in response to a drive signal 261 generated by control circuit  
11 249.” (‘079 Patent, Col. 4:3-5; see also ‘079 Patent, Col. 4:65-68.) Thus, the power switch is  
12 “switched” using the drive signal.

13 The specification further discusses the relationship between the drive signal and the power  
14 switch. “When drive signal 261 is high, the power switch 247 is on. In one embodiment, drive  
15 signal 261 is coupled to turn off power switch 247.”<sup>8</sup> This indicates that the drive signal switches  
16 the power switch by turning the power switch on and off. Thus, a person of ordinary skill in the art  
17 at the time of the invention would understand that the verb “to switch” means “to turn on or off.”

18 Accordingly, as used in Claim 1 of the ‘079 Patent, the Court construes the phrase “to switch  
19 the power switch in response to the feedback signal” to mean:

20 **to turn the power switch on or off in response to the feedback signal.**

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24 <sup>7</sup> The widely accepted meaning of the verb “to switch” is “to operate an electrical switch so  
25 as to turn (as a light) off or on.” MERRIAM WEBSTER’S COLLEGIATE DICTIONARY 1193 (10th ed.  
1993).

26 <sup>8</sup> (‘079 Patent, Col. 5:1-3; see also ‘079 Patent, Col. 6:50-65.) The specification does not  
27 suggest that the relationship between the drive signal and the power switch extends to anything  
28 beyond switching.

1 **C. The ‘908 Patent**

2 Claim 26 of the ‘908 Patent provides:

3 A power supply controller circuit, comprising:

4 a multi-function circuit coupled to receive a signal at a multi-function terminal for adjusting  
5 a **current limit** of a power switch, the multi-function circuit to generate a current  
6 limit adjustment signal in response to the signal; and

7 a control circuit coupled to receive the current limit adjustment signal, the control circuit  
8 coupled to adjust the **current limit** of a current though the power switch in response  
9 to the current limit adjustment signal.

10 (‘908 Patent, Col. 25:63-26:7.)

11 The parties dispute the meaning of the term “current limit.”

12 The specification does not expressly define the phrase “current limit.”<sup>9</sup> However, “current  
13 limit” is used in the specification as a threshold value of current measured in amperes or  
14 microamperes. (See ‘908 Patent, Col. 5:10-24, 10:8-32, 20:60-21:14.) The specification describes  
15 using the “current limit” to restrict the amount of current passing through the power switch by  
16 turning the power switch off when the current passing though the power switch meets the “current  
17 limit.” (See ‘908 Patent, Col. 10:8-33.) This functionality is accomplished by “control circuit 333  
18 [which] generates switching waveform 335 to control power switch 147 in response to . . . external  
19 current limit adjustment signal 315.”<sup>10</sup> Thus, the specification provides that “current limit” means a  
20 threshold value of current that can be used by the control circuit to turn off the power switch when  
21 the amount of current passing though the power switch reaches the threshold.

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22 <sup>9</sup> The ordinary technical meaning of “current limit” is a “control function that prevents a  
23 current from exceeding its prescribed limits.” IEEE 100 THE AUTHORITATIVE DICTIONARY OF IEEE  
24 STANDARDS TERMS 259 (7th ed. 2000).

25 <sup>10</sup> (‘908 Patent, Col. 9:49-54.) Nowhere in the specification is there any suggestion that the  
26 power switch itself has the capability to use the “current limit” to turn itself off. Further, in every  
27 relevant figure, the power switch is directly connected to the control circuit and the structures that  
28 set or adjust the control limit are only connected to the power switch via the control circuit. (See  
‘908 Patent, Figs. 1-4, 7.) Additionally, only the control circuit is disclosed as having the capability  
to turn off the power switch. (See ‘908 Patent, Col. 12:30-48.) Thus, the specification indicates that  
the control circuit uses the “current limit” to turn off the power switch.

1        Additionally, the parties dispute whether “current limit” should be confined to a specific  
2 purpose.<sup>11</sup> The Federal Circuit has cautioned that courts should read claims in light of the  
3 specification, but should avoid “importing limitations from the specification into the claim[s].”  
4 Phillips v. AWH Corp., 415 F.3d 1303, 1323 (Fed. Cir. 2005). In the ‘908 Patent, the specification  
5 expressly supports using the “current limit” for multiple purposes, including preventing transformer  
6 saturation, component protection and output regulation. (‘908 Patent, Col. 3:43-51, 7:39-56, 10:8-  
7 33.) These purposes are distinct from one another. For example, component protection relates to  
8 restricting the amount of current passing through the power supply to ensure that components are not  
9 damaged by excess current. (‘908 Patent, Col. 10:8-33.) Conversely, output regulation relates to  
10 using feedback or other means to manage DC output from the power supply. (‘908 Patent, Col.  
11 4:52-65.) Further, the Claim’s language does not confine “current limit” to any particular purpose.  
12 Thus, the specification supports multiple purposes and neither the specification nor the Claim  
13 requires “current limit” to be confined to a specific purpose. Therefore, to construe “current limit”  
14 to require a specific purpose would amount to reading in limitations from the specification, which  
15 the Court may not do. Phillips, 415 F.3d at 1323. Accordingly, the Court finds that “current limit”  
16 should not be confined to a specific purpose.

17        Accordingly, as used in Claim 26 of the ‘908 Patent, the Court construes the phrase “current  
18 limit” to mean:

19        **a value of current that can be used by the control circuit to turn off the power switch**  
20 **when the amount of current passing through the power switch reaches the threshold.**


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27        <sup>11</sup> (See Defendants’ Additional Claim Construction Brief at 6-10, Docket Item No. 139;  
28 Power Integrations’ Supplemental Claim Construction Brief at 6-9, Docket Item No. 142.)

1 **D. Conclusion**

2 In this Third Claim Construction Order, the Court has given its construction of the two  
3 additional disputed terms of the '079 and '908 Patents. To the extent that any party believes that  
4 further construction is necessary, that party may file the appropriate motion.

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6 Dated: May 9, 2012

  
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JAMES WARE  
United States District Chief Judge

1 **THIS IS TO CERTIFY THAT COPIES OF THIS ORDER HAVE BEEN DELIVERED TO:**

2 Anthony R. De Alcuaz adealcuaz@mwe.com  
3 Frank Everett Scherkenbach scherkenbach@fr.com  
4 Howard Glenn Pollack pollack@fr.com  
5 Jeremiah Aaron Armstrong jarmstrong@mwe.com  
6 Jeremy Todd Elman jelman@mwe.com  
7 Michael Richard Headley headley@fr.com

8 **Dated: May 9, 2012**

**Richard W. Wieking, Clerk**

9 **By: /s/ JW Chambers**  
10 **William Noble**  
11 **Courtroom Deputy**